

United States Environmental Protection Agency Washington, DC 20460

Notice of Arrival of Pesticides and Devices

Send Completed Form to Appropriate Regional Office Listed in the Instructions for this Form.

OMB Control No. 2070-0020 Approval Expires 11/30/2016

Pesticides and Devices Note: Read Instructions before completing form. Part I: To Be Completed by Importer of Record or Licensed Customs Broker 1. Name and Complete Address of Licensed Customs Broker 2. Name and Complete Address of Importer of Record Expeditors International Attn: Brynn Wisz Nufarm Americas Inc. 11901 South Austin Avenue 849 Thomas Drive Bensenville, IL 60106 Alsip, IL 60803 T:708-377-1330 T:630-616-2318 Return Form to this Address Return Form to this Address 3. Name and Complete Address of Shipper 4. EPA Registration Number 5. EPA Producer Establishment No. 35935-46 83807-CHN-001 Sichuan Leshan Fuhua Tongda Agro Chemical 6. Brand Name of Product Tech Co. Ltd. Qiaogou Road Wutonigiao District GLYPHOSATE ACID TECHNICAL Leshan City, Sichuan, China 614800 7. Active Ingredients and Percentage of Each N-(phosphonomethyl)glycine 95% 8. Unit Size 9. Quantity 10. Total Net Weight 11. Country of Origin 360 1,000 KG 360,000 Kgs China 12. Port of Entry 13. Name and Complete Address of Carrier Chicago, Illinois Hanjin Geneva 14. Entry Number 15. Anticipated Entry Date 231-8000042-8 1/24/14 17. Location of Goods for Examination after Importation Lassert that information constituting Confidential Business Information is shown in the above blocks numbered: (Note: Blocks 4, 5, Chicago, IL 6, 7 are not entitled to CBI treatment-see instructions) 18. To be Completed for Pesticides without an EPA Registration Number (The following information is optional, but may expedite processing of the Notice of Arrival. Check all that apply and provide additional information as indicated) 🔲 18a. A pesticide transferred between registered establishments operated by the same producer. Domestic Producer Establishment Number: 🔲 18b. A pesticide transferred between registered establishments not operated by the same producer. Domestic Producer Establishment Number EPA Registration Number of Product being Formulated, if applicable: ☐ 18c. A pesticide distributed under an Experimental Use Permit. Experimental Use Permit Number: 18d. A pesticide distributed for research and development purposes without an Experimental Use Permit. 18e. A pesticide transferred solely for export. Domestic Producer Establishment Number: 18f. A pesticide distributed under an emergency exemption. Emergency Exemption Number: ☐ 18g. A pesticide transferred for the purposes of disposal. 18h. Other. Provide an explanation including the intended use and a description of why the product is being imported into the United States in the Remarks (block 19).

19. Remarks (Provide additional information he	re. It is recommended that a	copy of the label affixed to the product be subm	itted with the NOA.).				
	•						
			•				
	Certifi						
I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law							
20. Printed Name of Importer of Record or Licensed Customs Broker	Telephone Number	21. Signature of Importer of Record or Licens	ed Date Signed				
Susan Wright	708-377-1363	Customs Broker Wan Wint	1/14/14				
Part II: To Be Completed by U.S. Environmental Protection Agency							
Action to be taken by U.S. Customs and Border	Protection						
Release Shipment	Detain for Inspection	Release shipment to consignee ube held intact pending inspection					
Other (Specify) ENTRY	# 231-800004	2-8					
Remarks		-					
	·						
Signature and Title of EPA Official			Date				
Mhan Dom / Enforce	mut Office		1-22-14				
		Customs and Border Protection					
The information shown in Part I was col was handled as instructed by EPA in Pa should also be noted in "Remarks."	mpared with the entry papers art II. Any deviations should b	for this shipment and no discrepancies were no be brought to the attention of EPA before releas	oted. The shipment ing shipment and				
Remarks		,					
Signature of District Director of Customs			Date				
Paperwork Reduction Act Notice: The est	imated average time to rea	ad the instructions and complete this form	is 26 minutes. Send				
comments regarding the burden estimate or any other aspect of this collection of information to: Director, Collection Strategies Division, Office of Environmental Information (OEI), U.S. Environmental Protection Agency (Mail Code 2822), 1200 Pennsylvania							
Avenue, NW, Washington, DC 20460. Inc	ation (OEI), U.S. Environ clude OMB number 2070-	mental Protection Agency (Mail Code 282 0020 in any correspondence	22), 1200 Pennsylvania				
12. 13. 17. 17. 17. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18	rade Olvio number 2070-	oozo m any correspondence.					

GLYPHOSATE TECHNICAL

N-(phosphonomethyl)glycine. DTHER INGREDIENTS: ACTIVE INGREDIENT:

95.0% 100.0%

EPA Reg. No. 35935-46

EPA Est. No. 83807-CHN-001

KEEP OUT OF REACH OF CHILDREN

DANGER

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)
SEE BELOW FOR FIRST AID AND ADDITIONAL PRECAUTIONARY
STATEMENTS

For Medical Emergencies Only, Call (877) 325-1840 For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

HAZARDS TO HUMANS AND DOMESTIC ANIMALS PRECAUTIONARY STATEMENTS DANGER

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED. Do not get in eyes or on clothing. Avoid breathing dust, Wear goggles or face shield. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

	FIRST AID	
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15	with water for 15
	to 20 minutes.	
	 Remove contact lenses, if present, after the first 5 minutes, 	first 5 minutes,
	then continue rinsing eye.	
	 Call a poison control center or doctor for treatment advice. 	atment advice.
IF SWALLOWED	Call a poison control center or doctor immediately for	diately for
	treatment advice.	
	 Have person sip a glass of water if able to swallow. 	swallow.
	 Do not induce vomiting unless told to do so by the poison 	by the poison
	control center or doctor.	
	 Do not give anything by mouth to an unconscious person. 	scions person.
IF INHALED	Move person to fresh air.	
	 If person is not breathing, call 911 or an ambulance, then 	pholance, then
	give artificial respiration, preferably by mouth-to-mouth, if	th-to-mouth, if
	possible.	
	Call a poison control center or doctor for further treatment	further treatment
	advice.	
	HOT INF NUMBER	

Have the product container or label with you when calling a poison control center or

You may also contact 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN
Probable mucosal damage may contraindicate the use of gastric lavage. doctor, or going for tre-

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless this product is specifically identified and addressed in an National Polutant Discharge Elimination System (NPDS) permit, Do not discharge efficient containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic and plastic-lined containers.

DO NOT MIX, STORE OR UTILIZE THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS

FOR MANUFACTURING USE ONLY STEEL) CONTAINERS OR TANKS. This product or solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing selicus personal injury, if ignited by open flame, spark, welder's forch, lighted objarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire label before using this product.

Lee only for the manufacturing or formulating of, or repackaging as, an herbicide for use in the following crops: Crop Groups 1, 2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19, 20; aceroiza, alcowers, armbarlier, asperaguis, attempts, avocado, bambor; barnans, betaint, birties, birtines, birtines, breadthit, buffait gourd; cacao (cocoa) bean; cactus; canistel; canda, eustand apple; dates, dokudami; durian; epazole; felice; com; coton; carbarly; cambe, custand apple; dates, dokudami; durian; epazole; felice; com; coton; carbarly; cambe, custand apple; dates, dokudami; durian; epazole; felice; com; coton; carbarly; deave, inps; ilana; inthe, imp; jaboricate; jackfult; jobba; junebrany; kava; karnif; kava; hops; ilana; malladebox (ganlp); meadowfoam; niogar; mountain papaya; mustard; conf (Indian malladebox (ganlp); meadowfoam; niogar; mountain papaya; mustard; palla; peppermit; pellia; pesisimmon; pine nut; pineapple; platachio; panut; papper lead; peppermit; pellia; pesisimmon; mice, cross apple; saffower; salai; papaminit; stell apple; sesame; sorghum (milb); soursos; soybean; spandaria; mer, spanaminit; stell apple; stevia; steawberny; sugar apple; sugarbeet; sugarcante; undiver; Sharian drawn; varion; manalaron; manalaron; manalaron; panalit; stell apple; stevia; steawberny; sugar apple; sugarbeet; sugarcante; undiver; Sharian drawn; varon; manalaron; panalit; stell apple; stevia; steawberny; sugar apple; sugarbeet; sugarcante; undiver; Sharian drawn; varon; manan; varon; manan; varon; waron; waron; waron; varon; manan; varon; manan; varon; manan; varon; manan; varon; manan; varon; varon; varon; varon; varon; manan; varon; va spinach; watercress; wax jambu; yacon.

For use in the following glyphosate-tolerant crops: Roundup Ready Alfalfa; Roundup Ready Canola (Winter Varieties); Roundup Ready Caro. Roundup Ready Coro.; Erled Corn Hybrids with Roundup Ready 2 Technology; Roundup Ready Cotton; Roundup Ready 2 Vield Sopbean; Roundup Ready 2 Yield Sopbean; Roundup Ready 2 Yield Sopbean; Roundup Ready Sweet Corn; Swee

For the following uses; bermudagrass release, broadcast and spot weed control; dennical mowing, cut stump application, hollow stem histochic rijection and fill; trin-and-deger, lurgrass renovation; sile speciation; and other uses in, on or around the following siles; altrifieds; altrochis; alleys, lares, table & access roads; apartment following siles; altrochis around commercial or industrials structures or outbuildings; around ornamental gradents; around commercial or industrials structures or outbuildings; constructures and outbuildings; around ornamental gradents; around ornamental gradents; around commercial siles; constructures and outbuildings; around ornamental gradents; around constructures and structures and outbuildings; around ornamental gradents; around construction siles; cRPI ballst restoration & management areas; industrial structures around; commercial siles; courses, gravel yards; hellst restorated & further of ways); industrial plant sites; pavel aroas; patroleum & other tank farms; partie to the ornamentals production siles; nuclear areas; natural areas; nower; telephone & utility rights-of-way; power stadions; popalitie can prover; telephone & utility rights-of-way; power stadions; popalitie areas; patroleum & other tank farms; purplic areas; patroleum & other tank farms; purplic areas; and ornamental plants; railored rights-of-way; railorads; properation areas and commental plants; railored rights-of-way; railorads; rangelands; recreation areas and entagenesis; sports complexes; storage areas; substations; tendental non-and grasss seed production; utility sites; uncropped farmsteed areas; uncludite habitat endeaved. areas; woody brush and trees; and other related sites.

This product may be used to formulate products for any additional uses not listed on this label if the formulator, user group, or grower has complied with U.S. EPA data label if the formulator, user group, or grower has comp submission requirements regarding the support of such use(s)

This product may be formulated for products to be used for experimental purposes that are in compilance with FIPRA.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE. Keep container closed to prevert giblls and contamination. PESTICIDE DISPOSAL: Wastes of this product may cause irreversible eye damage and may be danqerous. Improper disposal of excess pesticide or rinsate is a violation of reareal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING AND DISPOSAL: (This product is available in multiple containers. Follow the container disposal instructions below that apply to your container.

Nomefillable Containers Without Outer Bag: Nomefiliable container. Do not reuse or refil this container. Completely empty liner by shaking and tapping sides and boltom to losen clinging particles. Empty residue into processing equipment, then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities, by burning if burned stay out of smoke.

Nonrefillable Containers With Outer Bag: Norrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into processing equipment, then dispose of liner in a sanitary landfill or by inchreation if allowed by state and local authorities, by burning. It burned stay out of smoke. Ofter the outer bag for recycling, if available.

WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED AS IS' BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MARK HO WARRANTIES, GUARANTEES, OR REPRESSENTATIONS OF ANY KIND TO BUYER OR USE, ETHER EXPRESS OR MINITED, OR BY USAGE OF TRADE, STALUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANDED TO THE PRODUCT FOR A PARTICULAR PURPOSE, USE, OR RELIGIBLLITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, USE, OR ELGIBLLITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, USE, OR ELGIBLLITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, USE, OR ELGIBLLITY OF THE PRODUCT FOR ANY PARTICULAR PURPOSE, USE, OR SECUL TRECALUSE OF SUCH FACTORS AS THE PRESENCE OR ASSENCE OF OTHER MATERIALS USED IN COMBINATION WHATH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WARTING BUYER, MANUFACTURER OR SELLER AND SELLER, AND NO PERSON OR AGEN OF MANUFACTURER OR SELLER AND SELLER, AND NO PERSON OR AGEN OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY PREPRESENTATIONS AND PRESENCE OF ABSENCE OF ABSENCE OF AGENCY OF ADDRESS OF THE WARLAND NO PERSON OR AGEN OF THE PREPRESENTATIONS AND NO PERSON OR AGEN OF THE PREPRESENTATIONS AND WORD PERSON OR AGEN OF THE PREPRESENTATION OR WARRANTY OR AGENT OF THE PREPARE THE WAS ANY AUTHORITY TO MAKE ANY PREPARED.

LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INDIDENTAL, OR CONSEQUENTAL, DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PRAALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, PRAALTING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISCOSAL, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LABLE TO BUYER OR USER BY WAY OF INDIBMINICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF BY WAY OF INDIBMINICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF BY WAY OF INDIBMINICATION TO BUYER OR SELLER TO BUYER OR THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL SUCH RISKS SHALL BE EXEMIT CONSISTENT WITH APPLICABLE LAW, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY, AND MANUFACTURERS OR SELLER'S TOTAL LUBBLITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of the directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

MADE IN CHINA

(RV091713)

VET WEIGHT: 2204.6 LB (1000 KG)

4020 Aerial Center Parkway, Morrisville, NC 27560 **NUFARM LIMITED** Manufactured For





For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300. For Medical Emergencies Only, Call 1-877-325-1840.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name:

Glyphosate Technical NUP-07163

Synonyms: EPA Reg. No.:

Glyphosate; N-(phosphonomethyl) glycine

35935-46

Company Name:

Nufarm Limited

4020 Aerial Center Parkway Morrsiville, NC 27560

Date of Issue:

December 11, 2013

Supersedes: October 21, 2011

Sections Revised:

2. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance and Odor: White solid with slight odor.

Warning Statements: Keep out of reach of children. DANGER. CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. HARMFUL IF INHALED. Do not get in eyes or on clothing. Avoid breathing dust. Wear goggles or face shield. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before

Potential Health Effects:

Likely Routes of Exposure: Eye and skin contact.

Eye Contact: Causes substantial but temporary eye injury. Skin Contact: Slightly toxic based on toxicity studies.

Ingestion: Slightly toxic based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Inhalation: Low inhalation toxicity. Inhalation of dusts may cause coughing and sneezing.

Medical Conditions Aggravated by Exposure: Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

See Section 11: TOXICOLOGICAL INFORMATION for more information.

Potential Environmental Effects: Available data on similar formulations suggest that this product would be slightly to moderately toxic to aquatic organisms and practically non-toxic to avian species, honeybees and earthworms.

See Section 12: ECOLOGICAL INFORMATION for more information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT

N-(phosphonomethyl) glycine Other ingredients

CAS NO.

% BY WEIGHT

1071-83-6

95.0

5.0

4. FIRST AID MEASURES

If In Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable

Autoignition Temperature: Not applicable

Flammability Limits: Not applicable

Extinguishing Media: In case of fire, use water (flood with water), dry chemical, carbon dioxide, or alcohol foam.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as oxides of carbon, nitrogen, and phosphorous.

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 2 Flammability: 0 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.

Methods for Cleanup and Disposal: If dry, sweep or scoop up material and place into container for disposal. If wet, pump any free liquid into an appropriate closed container. Wash area with strong industrial detergent and water, absorb and sweep into container for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.

Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:

Do not get in eyes or on clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Solutions of this product should be mixed and stored using only stainless steel, aluminum, fiberglass, plastic or plastic-lined containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Storage:

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Keep container closed to prevent spills and contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:

Eye/Face Protection: To avoid contact with eyes, wear face shield, goggles or safety glasses with front, brow and temple protection. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this

measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

	OS	HA	AC	GIH	
Component	TWA	STEL	TWA	STEL	Unit
Glyphosate	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White solid with slight odor.

Boiling Point:

Evaporation Rate:

Freezing Point:

Decomposes @ 200°C

Density:

pH:

1.66 g/cc

Not applicable

Not applicable 2.14 (1% solution) Solubility in Water: Specific Gravity:

Soluble

Vapor Density:

Not determined Not applicable

Vapor Pressure: Viscosity:

Not applicable Not applicable

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal handling and storage conditions.

Conditions to Avoid: Excessive heat. Do not store near heat or flame.

Incompatible Materials: Strong oxidizing agents: bases and acids. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.

Hazardous Decomposition Products: Under fire conditions, may produce gases such as oxides of carbon, nitrogen, and phosphorous.

Hazardous Reactions: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data for Glyphosate Technical

Data from laboratory studies conducted on a similar, but not identical, formulation:

Oral: Rat LD₅₀: >5,000 mg/kg

Dermal: Rabbit LD₅₀: >5,000 mg/kg

Eye Irritation: Rabbit: Moderately to severely irritating.

Skin Irritation: Rabbit: Non-irritating

Subchronic (Target Organ) Effects: Repeated overexposure to glyphosate may decrease body weight gains and effects to liver.

Carcinogenicity / Chronic Health Effects: Prolonged overexposure to glyphosate may cause effects to the liver. There was no evidence of carcinogenicity in animal studies using glyphosate. EPA has given glyphosate a Group E classification (evidence of non-carcinogenicity in humans).

Reproductive Toxicity: In laboratory animal studies with glyphosate, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

Developmental Toxicity: In animal studies, glyphosate did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother.

Genotoxicity: Glyphosate has produced no genetic changes in a variety of standard in vitro (bacterial cells) and in vivo tests using animals.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Glyphosate Technical:

96-hour LC₅₀ Bluegill: 120 mg/l 96-hour LC₅₀ Rainbow Trout: 86 mg/l

86 mg/l 780 mg/l Bobwhite Quail 8-day Dietary LC₅₀:

>4,500 ppm

Mallard Duck 8-day Dietary LC₅₀:

>4,500 ppm

Environmental Fate:

48-hour LC50 Daphnia:

In the environment glyphosate adsorbs strongly to soil and is expected to be immobile in soil. Glyphosate is readily degraded by soil microbes to AMPA (aminomethyl phosphonic acid) that is further degraded to carbon dioxide. Glyphosate and AMPA are unlikely to enter ground water due to their strong adsorptive characteristics. Terrestrially-applied glyphosate has the potential to move into surface waters through soil erosion because it may be adsorbed to soil particles suspended in the runoff. Aquatic applications registered for certain formulations may also result in glyphosate entering surface waters. Complete degradation is slow, but dissipation in water is rapid because glyphosate is bound in sediments and has low biological availability to aquatic organisms. These characteristics suggest a low potential for bioconcentration in aquatic organisms and this has been verified by laboratory investigations of glyphosate bioconcentration in numerous marine and freshwater organisms with and without soil. The maximum whole body bioconcentration factors for fish were observed to be less than 1X. Bioconcentration factors for sediment dwelling mollusks and crayfish tended to be slightly higher, but were always less than 10X. In addition, any residues accumulated in organisms were rapidly eliminated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with application Federal, state or local procedures.

Container Handling and Disposal:

Nonrefillable Containers Without Outer Bag: Nonrefillable container. Do not reuse or refill this confainer. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into processing equipment, then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities, by burning. If burned stay out of smoke.

Nonrefillable Containers With Outer Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into processing equipment, then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities, by burning. If burned stay out of smoke. Offer the outer bag for recycling, if available.

Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with pump 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. An empty container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Completely empty package into formulation equipment. This package may be returned for refilling with this product. If not refilled, dispose of empty package in a sanitary landfill or by incineration as applicable.

14. TRANSPORTATION INFORMATION

DOT: Not Regulated

IMDG: Not Regulated

IATA: Not Regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations:

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370): Immediate

Section 313 Toxic Chemical(s): None

Reportable Quantity (RQ) under U.S. CERCLA: None

RCRA Waste Code: None

State Information:

Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not listed

16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

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